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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,298	07/29/2003	Sheldon Joseph Grywacheski	16448-US	6459

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Patent Department
DEERE & COMPANY
One John Deere Place
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EXAMINER

MAMMEN, NATHAN SCOTT

ART UNIT PAPER NUMBER

3671

DATE MAILED: 07/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/629,298

Applicant(s)

GRYWACHESKI ET AL.

Examiner

Nathan S Mammen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 14-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-12, 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,266,560 to Powell in view of U.S. Patent No. 6,296,566 to Tanis et al., or, alternatively, as being unpatentable over the Tanis '566 patent in view of the Powell '560 patent.

The Powell '560 patent discloses an agricultural harvester having an axial rotor (Fig. 2) with an axis (55) of rotation. The rotor comprises a drum having a rearward cylindrical portion (60) and a forwardly-extending frusto-conical portion (67). The rotor further includes an infeed section (25) for receiving harvested crop material and a crop processing section (generally, 63) for processing harvested crop material. The crop processing section includes at least one crop processing element (62) located on the frusto-conical portion. The crop processing element is parallel to the axis of rotation, and the infeed element (25) and the crop processing element (62) are helically oriented and helically aligned. The crop processing element (62) is a threshing element and it sweeps a cylindrical path. The infeed element (25) is a helical infeed flight. A second crop processing element (63) is located in the cylindrical portion of the drum and sweeps a cylindrical path.

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The Tanis '566 patent discloses an agricultural harvester having an axial rotor (64) with an axis of rotation (A). The rotor comprises a drum (64) having a rearward cylindrical portion and a forwardly-extending frusto-conical portion (62). The forward frusto-conical portion is an infeed section having infeed element (32) comprised of a helical flight. The rotor includes a crop-processing section having crop processing elements (not shown).

What the Powell '560 patent does not disclose is that the infeed section is located on the frusto-conical portion. Instead, the Powell '560 patent utilizes a cylindrical infeed section that feeds to the frusto-conical portion. The Tanis '566 patent teaches, however, that it is known in the art to provide a frusto-conical infeed section. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the agricultural harvester of the Powell '560 patent with a frusto-conical infeed as taught by the Tanis '566 patent, in order to improve the feeding of harvested crop material into the drum. See Tanis, col. 4, lines 21-35.

Alternatively, and distinctly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the agricultural harvester of the Tanis '566 patent with the crop processing elements located on the frusto-conical portion, as taught by the Powell '560 patent, in order to help disperse the crop material throughout 360 degrees of the rotor casing and to begin the threshing action. See Powell, col. 6, lines 5-9.

Response to Arguments

3. Applicant's arguments filed 6/21/05 have been fully considered but they are not persuasive.

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Applicant argues that the “structural combination of the two cited references...is not possible.” But Applicant makes the mistake of associating what may not be readily apparent from the patent drawings with what is impossible. Just because it is not shown does not mean it is not possible. It is axiomatic that “[t]he test for obviousness is not whether the features of the secondary reference may be bodily incorporated into the structure of the primary reference.... Rather, the test is what the combined teachings of those references would have suggested to those having ordinary skill in the art.” MPEP §2145 (III), quoting In re Keller, 642 F.2d 413 (CCPA 1981). In the instant case, providing the Powell rotor with a frusto-conical infeed is not a matter of simply extending the infeed flightings, as Applicant suggests. Rather, it would be replacing the cylindrical infeed with a frusto-conical infeed, as taught by Tanis, for the reason of improved crop feeding.

Applicant’s secondary argument, that there is no suggestion to combine, is puzzling, since the examiner has referred to explicit teachings in both references for the combination. Applicant has not addressed these explicit reference-suggested motivations. Tanis teaches that a frusto-conical infeed improves the feeding of crop material. Col. 4, lines 21-35. Powell teaches that providing crop-processing elements at on the frusto-conical portion before the cylindrical portion of the drum helps to “disperse the crop materials throughout 360 degrees of the rotor casing.”

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Mammen whose telephone number is (571) 272-

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6991. The examiner can normally be reached Monday through Thursday from 6:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will, can be reached at (571) 272-6998. The fax number for this Group is (571) 273-8300.

A handwritten signature in black ink, appearing to read 'Nathan S. Mammen', with a long horizontal flourish extending to the right.

Nathan S. Mammen
Patent Examiner
Group 3600

NSM
7/15/05